LITHOGRAPHIC ABSTRACTS

Lithographic Abstracts are issued monthly, to make it easier for LTF members to keep abreast of technical developments in the graphic arts, but particularly in lithography. Many more abstracts are prepared and filed. Over 200 periodicals are abstracted monthly.

These abstracts of important current articles, patents, and books are compiled by the LTF Research Department. They represent statements made by the authors and do not express the opinions of the abstractors or of LTF.

If the title of the abstract is not marked with an asterisk (*), LTF can supply photocopies of the original article. When you place an order for photocopies, please give the COMPLETE description of the articles you want-TITLE, AUTHOR, PUBLICATION, DATE, and PAGE NUMBERS.

The charge for photocopies is one dollar per page (check abstract for number of pages) plus four cents per page for postage. Postage charges for orders from places other than Canada and the United States or its territories and possessions is fifteen cents per page of photocopies. (These are sent air mail.) Orders from companies or individuals who are not members of LTF cannot be filled until payment is received.

Some of the abstracts are from abstract journals. The titles of these are marked with an asterisk (*). LTF cannot furnish photocopies of these articles and has no further information than that contained in the source that is named. If you want copies of U.S. Patents, write direct to the Commissioner of Patents, Washington 25, D.C. Send twenty-five cents for each patent desired. Make checks or money orders payable to "Treasurer of the United States". British patents may be obtained for forty-five cents from the Patent Office, 25, Southampton Buildings, London, W.C. 2, England, or, as is the case with all foreign patents, they may be obtained as photoprints from the U.S. Patent Office, Washington 25, D.C.

LTF also has printed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers". These are available for twenty-five cents each in coin or U.S. stamps. All inquiries concerning these lists and photocopies of original articles (not marked with an asterisk) should be addressed to: Lithographic Technical Foundation, Inc., Research Department, 1800 So. Prairie Ave., Chicago 16, Ill.

Additional LTF services include a broad range of books, technical bulletins, and course and training materials of vital importance to all in the lithographic industry--from apprentices to top technical, production, sales, and management personnel.

Information on LTF publications, audio-visuals, the LTF Color Chart, Sensitivity Guide, and LTF instruments, can be obtained from the Lithographic Technical Foundation, 131 East 39th Street, New York 16, N.Y.

Requests for information about seminars, technical problems, literature searches, and technical and research consulting services should be addressed to LTF Research Department.

LITHOGRAPHIC ABSTRACTS, AUGUST 1961

PHOTOGRAPHY, TONE & COLOR CORRECTION

778.3

THE SPECTROPHOTOMETER. Eric Chambers. The Litho-Printer, Vol. 4, March 1961, pp. 147, 149-150, (3 pages). Author first briefly explores the nature of color, the problems of dye and pigment colors in relation to separation filter colors and how a spectrophotometer measures the wavelengths of light which characterize color. The original instrument developed by Hardy is mentioned. A new instrument is reported which was developed by Orthman and Schirmir at Fogra. Its operation is based on the spectral method involving measurement of reflected light from 400 to 700 millimicrons. Schematic and circuit diagrams are given.

655.302

THE RELATIONSHIP BETWEEN DESIGN CONSIDERATIONS AND PRODUCTION RESULTS WITH THE SCANATRON COLOR SCANNER. Gordon S. Allen. The Litho-Printer, Vol. 4, March 1961, pp. 137-139 (3 pages). This scanner operates from separation negatives to produce corrected positives. Its objectives and development are described. Six are now in commercial production, eight more in various stages of installation and a total of over 30 ordered. Something of their current use is given and an example of the speed with which results are obtained is given. 3 illustrations.

771.534

WHAT IS FOG? Herbert P. Paschel. Modern Lithography 29, No. 3, March 1961, pp. 58-59,139 (3 pages). Fog is unwanted silver density, not part of the photographic image. It can take 3 forms: 1. Basic or inherent fog, 2. Chemical or processing fog, 3. Light or optical fog. Each is discussed and causes and remedies given.

655.302

THE CONTACT SCREEN STORY (Part 1). Frank H. Smith. The Lithographer and Offset Printer, Vol. 57, No. 2, February, 1961, pp. 11-13 (3 pages). The idea for a contact screen goes back into the last century, the first commercial screens were made around 1926. The Kodak dye image contact screens were first made in 1941. The control of contrast with the orange screen is explained. 2 diagrams.

655.302

THE CONTACT SCREEN STORY (Part 2). Frank H. Smith. The Lithographer and Offset Printer, Vol. 57, No. 3, March 1961, pp. 15-18 (4 pages). Perhaps the most successful screens are the Kodak magenta type. They give more detail than the conventional cross-line screen. Contrast may be controlled with filters. Gray screens are necessary for filter work in color separation and their use is explained. Other screens described are the negative and positive and universal screens.

655.302

MORE ABOUT THE IGT/PATRA SCREEN. Anonymous. The Lithographer and Offset Printer, Vol. 57, No. 3, March 1961, pp. 18, 22 (2 pages). Arrangements are now on hand for the commercial production of the IGT/PATRA contact screen - a completely new type of screen which gives far better tone reproductions than conventional cross-line screens. Limited numbers are available to PATRA members. Only gray is available now.

535.6

COLOR CONTROL METHODS INADEQUATE. Anonymous. The American Pressman, Vol. 71, No. 3, March 1961, pp. 20-22, 24 (3 pages). Reports of some of the talks given at an R.I.T. Color Control Seminar. While the eye can discriminate smaller color differences than an instrument, its memory is poor. Other points covered include the C.I.E. Color System, color deficiences and color blindness, viewing lights and instruments.

655.302

HIGHLIGHT AND DROPOUT AND HALFTONE TECHNIQUES (Part I). Herbert P. Paschel. Reproduction Methods 1, No. 1, March-April 1961, pp. 24-30, 60, 61 (9 pages). Printing processes, including offset duplicating, impose limitations on the tone scale that can be reproduced. Much of the loss is at the highlight end of the scale. A variety of "highlight" or "drop-out" techniques have evolved to help. Equipment involved is discussed briefly. The methods covered in this installment are: multiple aperture system used with glass screens; aperture or screen manipulation which by controlled dot displacement veils over the highlight slots of the negative; use of non circular diaphragm openings; use of highlight masking (with glass and contact screens). Certain indirect methods not concerned with the screening of the negative involve the use of special films which accentuate highlight contrast, the Velox method and the Logetronics control method which accentuate the highlights in the original copy. In summary, the highlight mask method is recommended as giving the best, most consistent results. 16 illus.

655.302

PROSPECTS FOR COLOR SCANNERS. Lee Revens. Book Production, March 1961, p. 83 (1 page) The electric color scanners simplify the steps needed to achieve high fidelity color reproductions. Textbooks and art books find improved quality possible through advances in these electronic computers. Six are listed and their operation briefly explained in general terms. Two successful art books prepared with the aid of scanning are cited.

655.302

THE RELATIONSHIP BETWEEN DESIGN CONSIDERATIONS AND PRODUCTION RESULTS WITH THE SCANATRON COLOR SCANNER. Gordon S. Allen. Print In Britain 8, No. 11, March 1961, pp. 344-346 (3 pages). A look at the Scanatron after a year or more of use. The system is described. Six are in commercial production and over 30 on order. Some of the work being done with it is described including a news job which was on the street 36 hours after the event. 3 illustrations.

655.332

A REPORT ON THE PDI COLOR SCANNER AND ITS USE AMONG GRAVURE PRINTERS. Anon. Gravure 7, No. 3, March 1961, pp. 44-46, 52, 88, 90, 92 (7 pages). The PDI Scanner is explained briefly and the extent of its use in publication printing pointed out. Particular attention is given to the various degrees of undercover removal and the variety of black printers possible. Other controls possible include unsharp masking on the black printer for the improvement of edge sharpness(or on the cyan printer in the case of 3 color printing), and peaking on all four colors for improved detail. Method of use and operating details are given with particular attention to gravure usage. Three illustrations plus a 4 page signature of examples of scanner separated and gravure printed color.

152.1

WHAT THE LITHOGRAPHER SHOULD KNOW ABOUT COLOR TRENDS. Faber Birren. Modern Lithography 29, No. 3, March 1961, pp. 32-33, 135, 137 (4 pages). Color has become an economic force with a tremendous potential in packaging. Color holds at least a 50% advantage over black and white. Printing inks are important in this. Preferences in colors and their strength tend to change over the years. These changes are discussed and shown in 2 charts.

771.447

INCANDESCENT CAMERA LAMP HAS NON-DIMMING FEATURE. Anon. Printing Production 91, No. 6, March 1961, p. 90 (1 page). Brief illustrated description of lamps incorporating an iodine cycle tube to eliminate bulb blackening.

772.93 : 655.302

*ELECTRONIC PREVIEWER FOR PHOTOGRAPHIC PROCESSES. U.S. Patent 2,977,407 - Filed February 10, 1960. Charles J. Hirsch - Assigned to Hazeltine Research, Inc. Official Gazette 764, No. 4, March 28, 1961, pp. 1101-1102. An electronic previewer for producing preview image of the positive photograph which will be obtained from a given negative photograph by a photographic development process, said previewer comprising: scanning means for producing a beam of scanning light of an intensity dependent on a control voltage supplied to the scanning means; means for directing the scanning beam along each of a plurality of paths of which at least one includes said negative photograph; a plurality of electro-optical means respectively responsive to the light transmitted by said negative photograph in said one path and to that in at least one of the other of said plurality of paths to produce corresponding electrical signals; signal processing means for logarithmically modifying each of said signals and additively combining the modified signals, the modification of the signals corresponding to the light transmitted in at least one of the other of said paths being in accordance with the gamma employed in said photographic development process; and means for deriving a control signal corresponding to the antilog of said combined modified signals and supplying it to said scanning means to control the intensity of the scanning beam produced thereby, the signal modification and combination effected by said signal processing means being such that the relationship between the intensity of said scanning beam and the transmission of said negative photograph is the same as the relationship between the transmission of that photograph and the positive photograph to be obtained therefrom; whereby the light produced by said scanning means will form said electronic preview image of said positive photograph.

PLANOGRAPHIC PRINTING PROCESSES

671.7

*SURFACES OF DECREASED WATER WETTABILITY AND PROCESS FOR THE PREPARATION THEREOF. U. S. Patent 2,977,245 - Filed June 24, 1957. Yun Jen - Assigned to American Cyanamid Co., Inc. Official Gazette 764, No. 4, March 28, 1961, p. 1070. A process of treating a hydrophilic surface to decrease its wettability by water, which comprises contacting said surface with a dilute aqueous solution of a high molecular weight cationic polyamine having an average molecular weight in excess of 10,000 and containing at least one amino nitrogen atom having at least one replaceable hydrogen atom for every 10 carbon atoms therein, thereby irreversibly absorbing at least some of said polyamine on said surface, and then contacting said surface with sufficient of a dilute aqueous solution of a soap having a hydrophobic anion to convert said adsorbed polyamine to hydrophobic soap form.

655.32

OFFSET PRINTING - Part I. George O. Baker. The American Pressman 71, No. 3, March 1961, pp. 25-27 (3 pages). This first installment explains what offset lithographic printing is in comparison with relief, intaglio and stencil. Diagrams show the nature of the ink transfer and the general configurations of the presses. A table compares the processes. 10 line illustrations.

655.325

AUTOMATIC PLATE PRODUCTION IN BRITAIN. Anonymous. The Litho-Printer, Vol. 4, March 1961, page 173. Brief story on a new plant for litho plate production. The graining and coating of a presensitized plate are mentioned. 1 illustration.

655.325

duPONT REPORTS CRONAFLEX FILM AS PRESS PLATE. Anon. Modern Lithography 29, No.3, March 1961, p. 115 (1 page). Announcement of a method of preparing an offset plate using the film which is fast enough for projection printing, produces a plate in 10 minutes and runs 5,000 or more top quality prints.

655.362

NEW PROCESS FOR BLACK-AND-WHITE LITHOGRAPHY. Anon. The Inland and American Printer and Lithographer 146, No. 6, March 1961, pp. 69, 72, 142 (3 pages). Brief description of a method of getting a full scale reproduction of photograph originals as developed by J. Tom Morgan of the Litho-Krome Company of Columbus, Georgia. Two plates are used, one for the lower tone value, one for the higher, both printed in black ink on a two-color press. Scale runs from the white of the paper to solid black ink. Densitometer control is used. Two examples printed on a cast coated paper are included. (6 other illustrations)

PAPER AND INK

667.5

PROBLEM OF ODOR ARISING FROM PRINTING INKS. J. B. M. Coates and R. H. Leach. The British Ink Maker 3, No. 2, February 1961, pp. 40-44 (5 pages). The nature of inks is explained in terms of the pigments, dyes and the liquid part. The odor of printed material can arise from the effect of the drying process on the ink components and (rarely) from interaction between the inks and the surfaces being printed. These causes are thoroughly discussed in relation to the several printing processes employed in packaging. Odors can be minimized in the printing operation (outside the scope of this paper) or in the making of the inks. Odorless or low odor inks have been produced but they lack some properties desired in the finished print.

655.326 : 655.329

PAPER FOR WEB-OFFSET. William H. Bureau. The Graphic Arts Monthly 33, No. 3, March 1961, pp. 110, 13, 14, 16 (4 pages). Rolls must be properly wound at the mill. Storing rolls on end on a damp floor can cause trouble. Various forms of pressure can deform rolls. Splices, cores, slime spots and other defects, effect of weight on yardage, roll diameters are all discussed. Papers used range from newsprint to heavy enamels. With coated papers, blistering in the dryer can be a problem. Papers for web-offset must meet normal lithographic requirements plus others imposed by web operation.

152.1

SUN CHEMICAL CORP. TO CHART COLOR TRENDS. Anonymous. American Ink Maker, Vol. 39, No. 3, March 1961, pp. 36-37 (2 pages). An increase from present printing ink from $250,000,000 to $350,000,000 in next ten years is predicted. Trends in color in printing will be charted. Packaging promises to represent 75% of that increase. The importance of color in packaging, printed advertising, commercial and publication printing is pointed out and discussed.

655.302

WHAT IS WHITE? Anonymous. Paper and Print, Vol. 34, No. 1, Spring 1961, pp.93, 95 (2 pages). Light and color are discussed in simple general terms. This is then interpreted in terms of ink and paper. Coating pigments and optical bleaches and their effect on "white" is discussed.

615.319 : 655.306

INK FORMULATION LIMITATIONS AND PRINTING PROGRESS. Paul J. Thoma. American Ink Maker 39, No. 3, March 1961, pp. 30-33 (5 pages). (Based on a report at the New York Printing Ink Production Club, Oct. 1960). Limitations cited are: Printer's idea of what he wants, copy to be reproduced, raw materials available, paper, press. Much research is being done at Time, Inc. on the mechanics of applying ink. Variation from run to run remains a problem. By studying the logs of various runs and by the use of electronic instrumentation much has been learned about inking and plate behavior at web speeds up to 2,000 ft. per min. 4 illustrations.

676.27

BLACK CLOTH DUST CHECK ON COATED PAPER. R. A. Watt. TAPPI 44, No. 3, March 1961, pp. 209A-210A (2 pages). A test was developed for measuring coating dust on coated paper at the paper machine. The test is performed by dragging a weighted black cloth or so-called dust rig on the moving coated web for a specified time. The weighted black cloth abrades the surface and the coating dust rubbed off is measured against dust number standards. Normal dust number ranges have been established for each coated grade which are guides for the coating process. The black cloth also detects loose coating particles and it was through the use of black cloth checks that the major cause of loose coating particles was pinpointed and virtually eliminated. The development, designing and testing of the dust rig are discussed. Many mechanical variables were investigated and safety factors were also considered. The black cloth dust check has been established as a routine test on coated paper and has been an aid in the study and improvement of coated grades.

676.27

COMPARATIVE pH MEASUREMENTS ON PAPERS BY WATER EXTRACTION AND GLASS ELECTRODE SPOT TESTS. Joseph Flynn and Leslie Smith. TAPPI 44, No. 3, March 1961, pp. 223-227 (5 Pages). The pH of a large number of experimental and commercial papers was determined by the TAPPI Standard T 435 cold-extraction method and a method in which glass-calomel electrodes were pressed against the surface of the papers, moistened with either distilled water or 0.1 N KCl solution. The use of potassium chloride solution instead of water gave better reproducibility, less time variation and values, on an average, about 0.4 pH units lower. Correlation between the spot tests and extraction pH's was rather poor, especially for papers of high extraction pH. Few generalizations could be made concerning the effects of the types of pulp or added chemicals upon the pH values. It appears that other variables in the papermaking, blending and pulping cause considerable variation in measured pH values of the paper. Because of the complicated nature of the chemical and physical processes involved, none of the methods can be judged to be superior to the others per se, but the spot test merits consideration in cases where a quick, nondestructive method is needed. 3 references, 3 illustrations, 3 tables.

676.27

'MM' PROS AND CONS. Anonymous. Printing Magazine and the Offset Printer, Vol.85, No. 3, March 1961, pp. 60-61 (2 pages). A parallel listing. Sample pros: easy for all to understand; cuts training time for new people; already in use in paperboard industry. Sample cons: increase costs to mills, labels become obsolete, old employees retrained; double identification of orders; tends to destroy classifications of papers; confusion at all levels; present size standards have meaning for papers to which they are applied.

655.306

THE EFFECT OF PIGMENT BINDERS ON PAPER GLOSS, PRINTED GLOSS AND OIL ABSORPTION. Robert E. Weber. Paper and Print, Vol. 34, No. 1, Spring 1961, pp. 64, 66, 69, 71, (4 pages). This report is a study of the interrelationships of paper gloss, printed gloss and oil absorption as it pertains to the adhesive concentration in paper coatings. The various adhesives studied along with a clay pigment are: (1) hydroxyethylated acid modified cornstarch; (2) corn white dextrin, and (3) soy protein. These coatings were applied by a KCM roll coater. The results show that printed gloss and oil holdout are improved with increase adhesive concentrations. Maximum printed glosses and oil holdout were reached at 36, 36 and 45 %. adhesive concentrations, respectively (based on a weight ratio of adhesive to 100 parts of pigment) for the hydroxyethylated starch, soy protein and white dextrin. At higher adhesive concentrations, there were no changes in the above properties. The calendered paper glosses were found to decrease at increased adhesive concentrations. Minimum paper glosses were found to exist at the binder levels where the maximum levels of printed gloss were obtained. At higher adhesive concentrations, the calendered paper glosses were found to increase.. The above findings are explained in terms of the void volume concept for pigments and by the varying degrees of adhesive bonding.

676.27

OPTICAL BRIGHTENERS. Anonymous. Printing Magazine and Offset Printer, Vol. 85, No. 3, March 1961, pp. 78-79 (2 pages). Brighteners were a lab curiosity five years ago, are now found in papers used in direct mail, advertising brochures, boxed papers, promotional pieces and letterhead papers. A table gives usage of brighteners in annual reports (734 or 59.09% out of 1409 used brighteners). Figures given are results of a survey conducted by the Dyes Department of American Cyanamid Company. 6 illustrations and 1 table.

655.306

PROGRESS IN THE DEVELOPMENT OF FLUORESCENT INKS AND THEIR GENERAL SUITABILITY FOR LETTERPRESS, LITHO AND GRAVURE. L. W. Harrison. British Printer 74, No. 3, March 1961, pp. 126-127 (2 pages). Daylight fluorescent inks, first developed in the U. S. for military use during the Second World War, created a major sensation when first used for screen process printing some ten years ago. They are now equally applicable to the major processes and can be regarded as a standard element of the industry's resources. Specific suggestions are offered for their use in the various processes. Latest inks and improved printing techniques indicate increased future use.

655.306

APPS ON INKS - THE HIGHLY DECORATIVE METALLICS. E. A. Apps. Paper and Print, Vol.34, No. 1, Spring 1961, pp. 96-97, 101 (3 pages). The metallic pigments - silver bronze, gold bronze, aluminum bronzes, bronze powders - are described briefly and their performance discussed. It is essential that a metallic pigment float in the medium. Smooth paper gives better results. The requirements of metallic inks for the various printing processes are given.

LITHOGRAPHY - GENERAL

655.323

POSITIVE STRIPPING (Part 11 - "Stripping for Profit"). Elizabeth Parker. National Lithographer 68, No. 3, March 1961, pp. 43, 45 (2 pages). Positives are used for printing certain kinds of plates. The differences from the more usual stripping of negatives are pointed out and precautions given.

655.328

SURVEY OF DAMPENERS. John M. Lupo, Jr. Modern Lithography 29, No. 3, March 1961, pp. 47-48, 131, 133 (4 pages). Dampening systems are classified as: 1. the contact type (the conventional system which dates back to about 1884 and has changed little); 2. the indirect contact type (Dahlgren and others); 3. non-contact type (Mullen air-doctor system). A modification of the conventional system (GAE system) is described. It employs a variable speed fountain roller. 1 reference, 4 illustrations.

655.32 : 655.02

ARRANGEMENTS OF LITHO CAMERA-PLATEMAKING DEPARTMENTS. Walter Wanielista. Printing Production 91, No. 6, March 1961, pp. 36-37, 126 (3 pages). Tips are given on layout based on the fact that each plant differs from another in size of plant, volume and anticipated growth. Ten basic planning steps are given for guidance which would serve to help an architect or engineer not too familiar with the operations involved. Three layouts are given and a fourth illustration shows light-tight entrances.

655.328

HOW PRESS BEARERS AFFECT OPERATION OF LITHOGRAPHIC PRESSES. Charles W. Latham. The Inland and American Printer and Lithographer 146, No. 6, March 1961, pp. 66-68 (3 pages). Bearers are found on all American made offset presses except small duplicators; on no foreign built presses except those made for the American market. Both kinds do good work. Method of alignment of presses without bearers is described briefly. Bearers help reduce streaks when gears wear. The relationship of packing height to bearer height is discussed. With no bearers, soft blankets are required and soft impressions result. Other points discussed are: checking cylinder diameters and adjusting print lengths on the two kinds of presses, bump streaks on presses without bearers, and the setting of bearers. 3 diagrams.

655.307 : 655.329

DRYERS FOR WEB-OFFSET PRESSES. Ben Offen. The Graphic Arts Monthly 33, March 1961, pp. 86-88, 90, 92, 94, 96, 98, 100 (9 pages). Dryers are required to get maximum quality, can be omitted if printing on newsprint or absorbent stock. Dryers mean sharper printing and freedom from restrictions on amount of ink laid, weight of stock or number of colors. Heat-set inks and the drying operation are described. Control, drying time, multiple web operation, speed of drying, paper waste, maintenance and chill rollers are among the further points discussed. 6 illustrations.

655.329

NEWSPAPERS BY WEB OFFSET. Part II. European Machinery. Anonymous. The Litho-Printer, Vol. 4, March 1961, pp. 130-131, 134-135, (4 pages). First web offset presses were designed in Europe and some of those earliest presses are still operating. Several are now being built and one design (Fruewald & Jaeger) is being used by newspaper printers. Others are made by Plamag, MAN, Crabtree, Aller and others. Their use in newspaper printing is discussed. Seven are shown in diagrams. 5 other diagrams.

655.329

THE ADVANTAGES AND DISADVANTAGES OF ROTARY WEB OFFSET PRINTING IN THE PUBLICATION FIELD. James N. Johnson. From The Production Management Round Table of the Associated Business Publications Report of a Conference held by ABP in New York, March 3, 1960, (10 pages). Author reports about 263 publication web offset presses in U. S. with 90-95% within 350 miles of Chicago. Also 90 to 95% are 22 3/4 x 35 in. blanket-to-blanket type with Offen ovens and no flying pasters. Data on press set ups and impositions are given with simple diagrams. Papers, press operation, wastes are discussed and figures given.

655.329

McCALL OFFSET PRESS PROBABLY LARGEST. Anonymous. The American Pressman, Vol. 71, No. 3, March 1961, pp. 31, 34 (2 pages). Brief story on a Levey press that is 108 feet long, 25 feet high and weighs about 700 tons. Two drums (one for each side) each about 5 feet in diameter, have five printing units on each and a drying cylinder for each side. Web speed is 2000 feet per minute, width 67-3/4 inches. Web length from rolls to slitter is about 470 feet. A schematic diagram shows the web lead.

GRAPHIC ARTS - GENERAL

655.36 : 655.303

COPY PREPARATION FOR SCREEN PRINTING. Francis Carr. British Printer 74, No. 3, March 1961, pp. 94-96 (3 pages). A different approach is necessary due to the stencil character of the process, the quality and appearance of the inks and the special effects possible. How to exploit these, also some pitfalls and limitations are explained. 3 illustrations.

655.36

SCREEN PROCESS ADVANCEMENT IN TERMS OF INK TECHNOLOGY. C. Burrows Stupples. British Printer 74, No. 3, March 1961, pp. 97-98 (2 pages). Description of development of cellulose based inks, quick drying yet suitable for screen printing. They were originally developed for wartime uses. Certain advantages are cited.

655.09

COMMERCIAL PRINTING RECEIPTS CLIMB A BILLION IN FOUR YEARS. Anonymous. The American Pressman, Vol. 71, No. 3, March 1961, page 28. Bureau of the Census figures are given for 1958 Census of Manufactures for commercial printing. This is broken down in a table into about 40 types, most of them separated by processes. A total figure is given for 1958 of $4,283,351,000 in comparison with a 1954 total of $3,285,000,000.

655.312

PHOTO-LATHE IS NEW ELECTRONIC ENGRAVER. Anonymous. Photoengravers Bulletin, Vol. 50, No. 8, March 1961, p. 52. Equipment is said to be suitable for small dailies and weekly newspapers. It cuts the image into zinc alloy plates with a cold stylus. Size is 8 x 10. A line screen effect is used.

655.04

HUMAN FACTORS DETERMINE QUALITY. Neil B. Kinley. Printing Magazine and the Offset Printer, Vol. 85, No. 3, March 1961, pp. 94-95, (2 pages). Control in setting up standards and then measuring up to them. Quality is a "degree of excellence". Quality is a state of mind, an attitude, "hoisting the standard high", right thinking. Each of these attributes of quality is elaborated upon from the standpoint of the human factors.

655.82

MAGNETIC INK BANK PRINTING. Anonymous. Printing Magazine and the Offset Printer, Vol. 85, No. 3, March 1961, pp. 82-84 (3 pages). Using small offset presses, electric typewriter cold type composition, and direct image plates, Michigan Lithographing Company is making a profitable sideline printing checks, deposit slips, shipping memoranda and re-order forms. Some methods and precautions are given. Registration is an important factor. 3 illustrations.

655.28

PHOTOCOMPOSITION IN BOOK PUBLISHING. Anon. Book Production, March 1961, p.59, (1 page). Story on Warwick Typographers, Inc. in St. Louis, using seven photographic typesetters. Some brief points on how the work is done for textbooks, children's books and magazines. 1 illustration.

655.73

THREE RULES FOR CUTTER CARE. Anon. Book Production, March 1961, page 53 (1 page). The three rules are: 1. oil where the instructions suggest as often as suggested; 2. grease as instructed as often as suggested by the manufacturer's manuals; 3. keep the knives sharp. These are enlarged upon and other suggestions given.

655.33

9 BASIC ADVANTAGES OF GRAVURE PRINTING. Anon. Gravure 7, No. 3, March 1961, pp. 27-30 (4 pages). These are listed as: 1. wide range of stocks; 2. instant-drying inks; 3. more brilliant color; 4. inline processing; 5. wide range of job sizes; 6. high speed web printing; 7. continuous design; 8. millions of impressions and 9. fast job change-over. Each is discussed with the aid of simple illustrations. The article itself is printed by sheet fed gravure and each of the 4 pages is an example of a different technique. Reprints are available from: Gravure Magazine
61 Hilton Avenue
Garden City, New York
(Cost 25¢ each)

655.335

EUROPEAN NEWSLETTER - A REPORT ON ELECTRONIC CYLINDER ENGRAVING. W. P. Jaspert. Gravure 7, No. 3, March 1961, pp. 40, 42 (2 pages). Two machines are described briefly - the Hell Rotoklischograph, still in the experimental stage, does a 14x40" area in 1 hour 35 minutes at 175 line screen, and the Staub Rototron apparently is a coarse screen machine for textile printing. Four are being built. 2 illustrattions.

655.02

BUILDING PROGRESS IN THE GRAPHIC ARTS INDUSTRY. Anon. Printing Production 91, No. 6, March 1961, pp. 43-64 (22 pages). A 22 page section is devoted to short articles on 25 different printing plants and trade shops covering a wide range of size of operation. Some of the projects covered include arranging equipment, workflow routes, departmental locations, plant expansion, how to plan, lighting and flooring, air conditioning and humidifying, modernization, building dimensions, new equipment, materials handling, and renovating old buildings. 17 floor plans are among the 50 illustrations.

655.306

HANDLING PAPER IN THE SHOP. Frank Arbolino. Modern Lithography 29, No. 3, March 1961, pp. 55, 137 (2 pages). Specific tips on the subject such as: allow paper 3 or 4 days to condition to pressrom atmosphere and temperature; applying heat to paper locally in the feeder to correct unevenness. Some suggestions were given on a picking and fuzzing problem.

655.81 :655.336

GRAVURE INKS FOR CARTONBOARD. E. A. Apps. Print In Britain 8, No. 11, March 1961, pp. 351-356 (6 pages). Author compares letterpress, offset, flexography and gravure for carton printing, giving a comparison table on costs, inks and other characteristics. Gravure ink characteristics and requirements for carton printing are given. Rub proofness is of some importance. The inks are then analyzed from the standpoint of the solvents, pigments and dyestuffs, resins, formulation and use of thinners or diluents. A table gives characteristics of thinners used. 2 tables.

*PRINTING PRESS ROLLERS. U. S. Patent 2,973,710 - Filed March 14, 1958. George Hantscho. Official Gazette 764, No. 1, March 7, 1961, p. 63 (1 page). A printing roller for attachment of a peripheral printing plate, comprising a cylindrical roller member having a longitudinal channel in the surface thereof, printing plate holding means within said channel for engaging and holding said plate on the surface of the roller and single elongated camming means slidably disposed within said channel and extending substantially throughout the length of the roller, said camming means slidably engaging the walls of said channel and said holding means and said camming means having at least two sets of reversely acting portions and being longitudinally movable within said channel to adjust the angular skew position of the holding means relative to the axis of the roller.

655.319

SHORT-RUN WEB LETTERPRESS. Edward Blank. From The Production Management Round Table of the Associated Business Publications (Report of conference held by ABP in New York, March 3, 1960, 3 pages). Letterpress is highly flexible and offers speed in getting into print. For short run work, printing with type and cuts will be with us for a long time. The break-even point on this is at 60-70,000 runs. Other break-even points comparing web lettpress and web offset with letterpress ahead on longer runs.

655.312 :655.322

THE VARIO-KLISCHOGRAPH. Anon. The Lithographer and Offset Printer, Vol. 57, No.3, March 1961, pp. 20-22, (3 pages). Description of this electronic engraver which engraves screened letterpress plates or prepares negatives or positives for printing lithographic plates. It enlarges up to four diameters or reduces to one-third size of original. Plate size is 12x16-½ inches. Six screen rulings are available.

655.02

THE PSYCHOLOGICAL EFFECTS OF PLANT CONDITIONS ON PRODUCTION PERSONNEL. Michael H. Panzer and David A. Hartmann. Plaid Proofs, Spring 1961, pp. 3-7 (5 pages). The most important environmental factors are listed as lighting, temperature, humidity and noise. A table of light levels is given, this and the other factors discussed briefly.

655.04

QUALITY CONTROL AND MAINTENANCE OF QUALITY. A. Williamson. The Litho-Printer, Vol. 4, March 1961, pp. 157-158 (2 pages). Points of control mentioned are incoming materials such as ink, paper and board, specimen sheets from production runs, new products of possible interest. Maintenance of quality involve both quality control and production departments in cooperation under an efficient management.

655.306

HOW DO WE PRINT TOMORROW? Ronald I. Drake. The Inland and American Printer and Lithographer 146, No. 6, March 1961, pp. 54-55, 138, 141 (4 pages). Some parallel history of papermaking and printing is given and the acceleration of the rate of progress noted. In the last 10 years, instrumentation and automation in printing while in papermaking on-machine coating and improvement of paper to fit specific printing needs has been outstanding. Cast-coated papers and recent growth in web offset are cited also. Some of the paper problems of web offset are discussed. For the future, the author predicts one paper will be suitable for all processes, (letterpress and offset inks more liquid and less tacky will help in this), papers will be level, smooth, glossy and ink receptive. Other predictions involve new papermaking materials, phototypesetting and electronic printing.

655.318

THE WRAP-AROUND PRESS. Charles E. Wortman. The Inland and American Printer and Lithographer 146, No. 6, March 1961, pp. 62-63, 134, 136 (4 pages). A question-answer interview on the Harris press, approximately 15 of which are now in use. Some points covered include advantages of the press, the plates and their preparation, the inking system, inks, etc. (1 illustration).